

CLAIMS:

1. An optical recording medium comprising a) a dielectric layer, b) a recording layer, and c) a reflective layer, which are stacked on a surface of a substrate in the described order or stacked on said surface in the order of b) the recording layer, a) the dielectric layer, and c) the reflective layer, said recording layer comprising a mixed nickel oxides, wherein said mixed nickel oxide comprises NiO and Ni₂O₃ as a major portion.
2. The optical recording medium of claim 1, wherein said mixed nickel oxides decomposes to release a gas upon heating.
3. The optical recording medium of claim 1, wherein said mixed nickel oxides in said recording layer becomes transparent from its original black color upon heating.
4. The optical recording medium of claim 2, wherein said heating is at a temperature of 150 to 370°C.
5. The optical recording medium of claim 3, wherein said heating is at a temperature of 150 to 370°C.
6. The optical recording medium of claim 1, wherein said dielectric layer comprises silicon oxide or Al₂O₃.
7. The optical recording medium of claim 1, wherein said reflective layer is comprised of a member selected from the group consisting of Ag, Al, Au, Pt, Cu and an alloy thereof.
8. The optical recording medium of claim 1, wherein said recording layer is formed by a reactive sputtering technique.
9. The optical recording medium claim 8, wherein said recording layer is

formed by reactive sputtering in an oxygen gas containing atmosphere using NiO as a target.

10. The optical recording medium of claim 1, wherein said recording layer
5 is 30-100 nm in thickness.

11. The optical recording medium of claim 1, wherein said dielectric layer is 10-300 nm in thickness.

10 12. The optical recording medium of claim 1, wherein said reflective layer is 80-130 nm in thickness.